

### In the Claims

1. (AMENDED) A method of adaptive [survey or] assessment systems used to collect information related to the development, administration, and analysis of surveys and assessments comprising:

5 a source of [survey or] assessment response data [(e.g., previous survey administrations, pilot sample, expert opinion)];

a software program capable of adaptive [survey or] assessment administration via a web browser or computer terminal with the ability to accept survey or assessment related information [from a respondent or other external source];

10 the adaptive [survey or] assessment software containing with a database survey questions relevant to the development, administration, and analysis of surveys and assessments;

a Bayesian belief network [or other probability-based model] containing probability information created by a software program to assist in survey or assessment related decisions;

15 wherein the adaptive [survey or] assessment software [that] automatically updates the probability information after each response to predict the user's opinion about possible courses of action related to the development, administration, and analysis of an [surveys and] assessment[s];

the adaptive [survey or] assessment software that uses responses to previous questions to automatically determine the most informative question to ask next;

20 the adaptive [survey or] assessment software that continues adaptively administering questions until a predetermined probability-based confidence level has been reached;

the adaptive [survey or] assessment software [that] is capable of reporting [to the user or sponsoring organization] the most probable responses of survey questions for which there was no response [they did not respond];

the adaptive [survey or] assessment software that is capable of reporting [to the user or sponsoring organization] the most probable courses [course(s)] of action related to the development, administration, and analysis of surveys and assessments.

2. (AMENDED) The method of claim 1 further comprising the steps of:

first [step of] determining the relationship among survey questions and their underlying constructs using either previously collected data or a small pilot administration;

secondly [step of] using the relationships calculated in first step to create a probability distribution contained in a Bayesian belief network or other probability-based model;

thirdly [step of] running a simulation using adaptive branching structure for controlling the administration of questions to each user to determine the applicability of adaptive administration; and

[optional] fourthly [step of] incorporating the user data back into the probability model to improve accuracy of probability estimates.

3. (CANCELLED)

4. (AMENDED) The method of claims 1[, or 2[, or 3 further comprising] wherein:

the method of adaptive [survey or] assessment systems is used to collect information is related to product development [and/]or its introduction into one or more markets comprising:

a source of product development information [(e.g., customers, competitors, market research, employees, vendors, resellers)];

the adaptive [survey or] assessment software contains a database survey questions relevant to product development and/or its introduction into one or more markets;

the Bayesian belief network [or other probability-based model containing] contains probability information created by a software program to assist in product development and market decisions;

the adaptive [survey or] assessment software automatically updates the probability information after each response to predict [the] a survey user's opinion about possible courses of action related to product development and/or its introduction into one or more markets;

the adaptive [survey or] assessment software is capable of reporting [back to the user or sponsoring organization] the most probable [course(s)] courses of action related to product development, [and/or its introduction into one or more markets

the probability-based information is related to product development and market classification.]

5. (AMENDED) The method of claims 1[,] or 2[, or 3] [further comprising] wherein:

the method of adaptive [survey or] assessment systems is used to collect information related to customer interests, values, preferences, and intentions comprising:

a source of customer-related information [(e.g., customers, industry analysts, vendors, employees, resellers)];

[the] a software program capable of adaptive [survey or] assessment administration with the ability to accept customer satisfaction or other customer-related information from a user or other external source via a web browser or computer terminal;

the adaptive [survey or] assessment software containing [with] a database survey questions relevant to customer interests, values, preferences, and intentions;

the Bayesian belief network [or other probability-based model containing]  
contains probability information created by a software program to assist in customer satisfaction  
or other customer-related decisions;

the adaptive [survey or] assessment software [that] automatically updates the  
5 probability information after each response to predict the survey user's opinion about possible  
courses of action related to customer interests, values, preferences, and intentions; and

the adaptive [survey or] assessment software that is capable of reporting [back to  
the user or sponsoring organization] the most probable [course(s)] courses of action related to  
customer interests, values, preferences, and intentions[;

10 the probability-based information is related to customer satisfaction or other  
customer-related classification].

6. (AMENDED) The method of claims 1[, or 2[, or 3] [further comprising] wherein:

the method of adaptive [survey or] assessment systems used to collect information related  
to diagnosing or treating medical illness or pathology comprising:

15 a source of patient symptom and medical history information [(e.g., nurse,  
physician, patient, relative)];

[the] a software program capable of adaptive [survey or] assessment administration with  
the ability to accept medical diagnostic or treatment related information from a user or other  
external source via a web browser or computer terminal;

20 the adaptive survey or assessment software containing [with] a database of survey  
questions relevant to diagnosing or treating medical illness or pathology;

the Bayesian belief network [or other probability-based model containing]  
contains probability information created by a software program to assist in medical diagnostic or

treatment related decisions;

the adaptive [survey or] assessment software [that] automatically updates the probability information after each response to predict the survey user's opinion about possible courses of action related to diagnosing or treating medical illness or pathology; and

5 the adaptive survey or assessment software that is capable of reporting [back to the user or sponsoring organization] the most probable [course(s)] courses of action related to diagnosing or treating medical illness or pathology[;

the probability-based information is related to medical diagnostic or treatment related classification].

10 7. (CANCELLED)

8. (AMENDED) The method of claims 1[, or 2[, or 3] [further comprising] wherein:

the method of adaptive [survey or] assessment systems used to collect information related to career exploration and/or vocational guidance comprising:

15 a source of career counseling or vocational information [(e.g., school or vocational counselors, occupational therapists, students, teachers, parents)];

[the] a software program capable of adaptive [survey or] assessment administration with the ability to accept career or vocational related information from a user or other external source via a web browser or computer terminal;

20 the adaptive [survey or] assessment software containing with a database survey questions relevant to career exploration [and/]or vocational guidance;

the Bayesian belief network [or other probability-based model containing] contains probability information created by a software program to assist in career or vocational [related] decisions;

the adaptive [survey or] assessment software [that] automatically updates the probability information after each response to predict the survey user's opinion about possible courses of action related to career exploration [and/]or vocational guidance; and

the adaptive [survey or] assessment software [that] is capable of reporting [to the user] the most probable [course(s)] courses of action related to career exploration [and/]or vocational guidance[;

the probability-based information is related to career or vocational related classification].

9. (AMENDED) The method of claims 1[, or 2[, or 3] [further comprising] wherein:

the method of adaptive [survey or] assessment systems used to collect information related to census collection and polling surveys of public opinion comprising:

a source of census data and public opinion, interest, value, or intention information;

[the] a software program capable of adaptive [survey or] assessment administration with the ability to accept census and public opinion related information from a user or other external source via a web browser or computer terminal;

the adaptive survey or assessment software containing [with] a database of survey questions relevant to census collection and polling surveys of public opinion;

the Bayesian belief network [or other probability-based model containing] contains probability information created by a software program to assist in census and public opinion related decisions;

the adaptive [survey or] assessment software [that] automatically updates the probability information after each response to predict the survey user's opinion about possible courses of action related to census collection and polling surveys of public opinion; and

the adaptive [survey or] assessment software [that] is capable of reporting [back to the user or sponsoring organization] the most probable [course(s)] courses of action related to census collection and polling surveys of public opinion[;

the probability-based information is related to census and public opinion related classification].

10. (AMENDED) The method of claims 1[, or 2[, or 3] [further comprising] wherein:

the method of adaptive [survey or] assessment systems used to collect information related to systems that assist in troubleshooting solving technical and complex issues comprising:

a source of information on the symptoms and circumstances surrounding technical problems;

[the] a software program capable of adaptive [survey or] assessment administration with the ability to accept technical support related information from a user or other external source via a web browser or computer terminal;

the adaptive [survey or] assessment software containing [with] a database survey questions relevant to systems that assist in troubleshooting solving technical and complex issues;

the Bayesian belief network [or other probability-based model containing] contains probability information created by a software program to assist in technical support related decisions;

the adaptive [survey or] assessment software [that] automatically updates the probability information after each response to predict the survey user's opinion about possible

courses of action related to systems that assist in troubleshooting solving technical and complex issues; and

the adaptive [survey or] assessment software [that] is capable of reporting [back to the user or sponsoring organization] the most probable [course(s)] courses of action related to systems that assist in troubleshooting solving technical and complex issues[;

the probability-based information is related to technical support related classification.]

11. (AMENDED) The method of claims 1 [,] or 2 [, or 3] [further comprising] wherein:

the method of adaptive [survey or] assessment systems used to collect information related to employee attitudes, interests, preferences, and opinions comprising:

a source of information on worker attitudes and opinions [(e.g., employees, supervisors, subordinates, peers, consultants)];

[the] a software program capable of adaptive [survey or] assessment administration with the ability to accept employee feedback related information from a user or other external source via a web browser or computer terminal;

the adaptive [survey or] assessment software containing [with] a database of survey questions relevant to employee attitudes, interests, preferences, and opinions;

the Bayesian belief network [or other probability-based model] containing probability information created by a software program to assist in employee feedback related decisions;

the adaptive [survey or] assessment software [that] automatically updates the probability information after each response to predict the survey user's opinion about possible courses of action related to employee attitudes, interests, preferences, and opinions; and



the adaptive [survey or] assessment software that is capable of reporting [back to the user or sponsoring organization] the most probable [course(s)] courses of action related to employee attitudes, interests, preferences, and opinions[;

the probability-based information is related to employee feedback related classification].

12. (AMENDED) The method of claims 1[, or 2[, or 3] [further comprising] wherein:

the method of adaptive survey or assessment systems used to collect information related to the description or prediction of market performance and conditions comprising:

a source of market-specific data [(e.g., analysts, previous market research, indices, organizations)];

the adaptive [survey or] assessment software containing with a database of survey questions relevant to the description or prediction of market performance and conditions;

the Bayesian belief network [or other probability-based model] containing probability information created by a software program to assist in market research related decisions;

the adaptive [survey or assessment] software [that] automatically updates the probability information after each response to predict the survey user's opinion about possible courses of action related to the description or prediction of market performance and conditions; and

the adaptive survey or assessment software that is capable of reporting [back to the user or sponsoring organization] the most probable [course(s)] courses of action related to the description or prediction of market performance and conditions[;

the probability-based information is related to market research related classification].

13. (AMENDED) The method of claims 1[, or 2[, or 3] [further comprising] wherein:

the method of adaptive survey or assessment systems used to collect information related to the assessment and quantification of an individual's skill set comprising:

a source of information of the individual's skill set [(e.g., self-report, supervisors, peers, performance tests)];

5 the adaptive survey or assessment software containing [with] a database survey questions relevant to the assessment and quantification of an individual's skill set;

the Bayesian belief network [or other probability-based model] containing probability information created by a software program to assist in skills assessment related decisions;

10 the adaptive [survey or] assessment software [that] automatically updates the probability information after each response to predict the survey user's opinion about possible courses of action related to the assessment and quantification of an individual's skill set; and

the adaptive [survey or] assessment software that is capable of reporting [back to the user or sponsoring organization] the most probable [course(s)] courses of action related to the assessment and quantification of an individual's skill set[;

15 the probability-based information is related to skills assessment related classification].

14. (AMENDED) The method of claims 1[, or 2[, or 3] [further comprising] wherein:

the method of adaptive [survey or] assessment systems used to collect information related to the evaluation of educational instructors, courses, and institutions comprising:

20 a source of information related to the effectiveness of educational initiatives [(e.g., students, parents, teachers, administrators)];

the adaptive survey or assessment software containing [with] a database of survey questions relevant to the evaluation of educational instructors, courses, and institutions;

the Bayesian belief network [or other probability-based model] containing probability information created by a software program to assist in educational assessment related decisions;

the adaptive survey or assessment software [that] automatically updates the probability information after each response to predict the survey user's opinion about possible courses of action related to the evaluation of educational instructors, courses, and institutions; and

the adaptive survey or assessment software [that] is capable of reporting back [to the user or sponsoring organization] the most probable [course(s)] courses of action related to the evaluation of educational instructors, courses, and institutions[;

the probability-based information is related to educational assessment related classification].